

SURFACE-MODIFIED NANOPARTICLES AND METHOD OF MAKING AND USING SAME**Publication number:** JP10511957T**Publication date:** 1998-11-17**Inventor:****Applicant:****Classification:**






- international: A61K9/16; A61K9/51; A61K31/70; A61K38/00; A61K39/08; A61K45/00; A61K47/48; A61K48/00; A61P9/00; A61P31/04; A61P35/00; C08G65/28; A61K9/16; A61K9/51; A61K31/70; A61K38/00; A61K39/08; A61K45/00; A61K47/48; A61K48/00; A61P9/00; A61P31/00; A61P35/00; C08G65/00; (IPC1-7): A61K9/16; A61K31/70; A61K38/00; A61K39/08; A61K45/00; A61K47/48; A61K48/00; C08G65/28

- european: A61K9/51

Application number: JP19960521279T 19960104

Priority number(s): WO1996US00476 19960104; US19950369541 19950105; US19950389893 19950216

Also published as:

 WO9620698 (A3)
 WO9620698 (A2)
 EP0805678 (A3)
 EP0805678 (A2)
 EP0805678 (A0)

more >>

[Report a data error here](#)

Abstract not available for JP10511957T

Abstract of corresponding document: **WO9620698**

Biodegradable controlled release nanoparticles as sustained release bioactive agent delivery vehicles include surface modifying agents to target binding of the nanoparticles to tissues or cells of living systems, to enhance nanoparticle sustained release properties, and to protect nanoparticle-incorporated bioactive agents. Unique methods of making small (10 nm to 15 nm, and preferably 20 nm to 35 nm) nanoparticles having a narrow size distribution which can be surface-modified after the nanoparticles are formed is described. Techniques for modifying the surface include a lyophilization technique to produce a physically adsorbed coating and epoxy-derivatization to functionalize the surface of the nanoparticles to covalently bind molecules of interest. The nanoparticles may also comprise hydroxy-terminated or epoxide-terminated and/or activated multiblock copolymers, having hydrophobic segments which may be polycaprolactone and hydrophilic segments. The nanoparticles are useful for local intravascular administration of smooth muscle inhibitors and antithrombogenic agents as part of interventional cardiac or vascular catheterization such as a balloon angioplasty procedure; direct application to tissues and/or cells for gene therapy, such as the delivery of osteotropic genes or gene segments into bone progenitor cells; or oral administration in an enteric capsule for delivery of protein/peptide based vaccines.

Data supplied from the esp@cenet database - Worldwide